

REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed December 13, 2004 (Paper No.8). Upon entry of this response, claims 52-55, 63-88 and 94-99 are pending in the application. In this response, claims 75, 77-79, 81-82 and 84 have been amended, claims 94-99 have been added, and claims 49-51, 56-62 and 89-93 have been cancelled. Applicants respectfully request that the amendments being filed herewith be entered and request that there be reconsideration of all pending claims.

1. **Allowable Subject Matter**

Applicants acknowledge the Examiner's indication in the Office Action that claims 77, 80, 81, 84, 87, 88, and 91 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. However, Applicants have not amended claims 77, 80, 81, 84, 87, 88, and 91 because Applicants believe that the base claims from which these claims depend are allowable for at least the reasons discussed below.

2. **Rejection of Claims 75, 77, 79, 82 and 91 under 35 U.S.C. §112, Second Paragraph**

Claims 75, 77, 79, 82 and 91 have been rejected under §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as his invention.

First, the Office Action rejects claims 75 and 82 because it alleges there is insufficient antecedent basis for "the transmission rate." (Office Action, p. 2, paragraph 5). Independent claims 75 and 82 have been amended to recite "data communications equipment having a current transmission rate," and Applicants request this rejection be withdrawn.

Next, the Office Action rejects claims 77 and 91 because “it is not clear what ‘the maximum duration of’ means.” (Office Action, p. 2, paragraph 5). Claim 77 has been amended to recited “a maximum duration,” and claim 91 has been cancelled. Accordingly, Applicants request that this rejection be withdrawn.

Finally, the Office Action rejects claim 79 because it alleges there is insufficient antecedent basis for “the collecting step.” (Office Action, p. 2, paragraph 5). Applicants traverse this rejection. Independent claim 76 recites “responsive to the detecting, *collecting data* describing one or more subsequent transients that occur over a first predetermined length of time.” Applicants respectfully submit that this introduces a “collecting step,” and that this provides antecedent basis for “the collecting step” in claim 79. Accordingly, Applicants request that this rejection be withdrawn.

3. Rejection of Claims 52, 56, 63, 67, 71, 75, 76, 78, 79, 82, 83, 85, 86, 89, 90, 92, and 93 under 35 U.S.C. §103

Claims 52, 56, 63, 67, 71, 75, 76, 78, 79, 82, 83, 85, 86, 89, 90, 92, and 93 have been rejected under §103(a) as allegedly obvious over *Maxwell et al.* (U.S. 4,771,417) in view of *Smith et al.* (U.S. 3,935,392). Applicants respectfully traverse these rejections. It is well established at law that, for a proper rejection of a claim under 35 U.S.C. §103 as being obvious based upon a combination of references, the cited combination of references must disclose, teach, or suggest, either implicitly, all elements/features/steps of the claim at issue. *See, e.g., In re Dow Chemical*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988); *In re Keller*, 208 U.S.P.Q.2d 871, 881 (C.C.P.A. 1981).

a. Rejection of Claims 56, 89, 90, 92 and 93

Claims 56, 89, 90, 92 and 93 are cancelled without prejudice, waiver, or disclaimer, and the rejection of these claims is therefore rendered moot. Applicants take this action merely to reduce the number of disputed issues and to facilitate early allowance and issuance of other claims in the present application. Applicants reserve the right to pursue the subject matter of these cancelled claims in a continuing application, if Applicants so choose, and do not intend to dedicate any of the cancelled subject matter to the public.

b. Rejection of Claims 52 and 67

Applicants respectfully submit that claims 52 and 67 are allowable for at least the reason that the proposed combination of *Maxwell et al.* in view of *Smith et al.* does not disclose, teach, or suggest at least the feature of “causing the data communications equipment to restore its data transmission rate to the original rate after a predetermined period of time” as recited in claim 52 or the feature of “after the lapse of a predetermined length of time, causing the data communications equipment to resume data transmission” as recited in claim 67.

Maxwell et al. discloses a modem that monitors the number of errors in received data, and reduces the transmission rate when the number of retransmitted frames reaches a certain level. (Col. 19, line 47 to Col. 20, line 18). *Maxwell et al.* also teaches that the modem increases the transmission rate when the number of retransmitted frames goes back to zero. (Col. 20, lines 18-27). In contrast, Applicants’ invention as defined in claim 52 causes the data communications equipment “to restore its data transmission rate to the original rate ***after a predetermined length of time.***” Applicants’ invention as defined claim 67 recites “***after the lapse of a predetermined length of time,*** causing the data communications equipment to resume data transmission.”

Applicants respectfully submit that the “prescribed time out period” in *Maxwell et al.* does not correspond to the “predetermined length of time” recited in claims 52 and 67. The timeout in *Maxwell et al.* is used to wait for an acknowledgement of a request for low-speed mode, and is not a timeout associated with errors or retransmitted frames. (Col. 19, lines 60-63). Furthermore, the modem in *Maxwell et al.* does not increase the transmission rate at the expiration of the timeout, but instead “initiates recovery by establishing the link and reentering the transmit sequence.” (Col. 19, lines 63-65).

Smith et al. contains no discussion at all of adjusting data transmission rate in a data communications equipment. Accordingly, the proposed combination of *Maxwell et al.* in view of *Smith et al.* does not teach at least the above-described features of claims 52 and 67. Since the proposed combination does not teach at least the above-described features recited in claims 52 and 67, a *prima facie* case establishing an obviousness rejection has not been made. Thus, claims 52 and 67 are not obvious under the proposed combination of *Maxwell et al.* in view of *Smith et al.*, and the rejection should be withdrawn.

c. Rejection of Claim 63

Applicants respectfully submit that claim 63 is allowable for at least the reason that the proposed combination of *Maxwell et al.* in view of *Smith et al.* does not disclose, teach, or suggest at least the feature of “after the occurrence of a subsequent transient, causing the data communications equipment to resume data transmission” as recited in claim 63.

Maxwell et al. discloses a modem that monitors the number of errors in received data, and reduces the transmission rate when the number of retransmitted frames reaches a certain level. (Col. 19, line 47 to Col. 20, line 18). *Smith et al.* discloses detecting transients produced by make-break pulse dialing. According to the Office Action, the combination of the

transmission rate adjustment in *Maxwell et al.* and the pulse detection in *Smith et al.* teaches suspending or lowering transmission rate on detection of errors. (Office Action, p. 4, first paragraph). The implication is that in combining the two references, the detected transients in *Smith et al.* are substituted for detected errors in *Maxwell et al.*

Maxwell et al. also teaches that the modem increases the transmission rate when the number of retransmitted frames (errors) goes back to zero. (Col. 20, lines 18-27). Applicants' invention as defined in claim 63 causes the data communications equipment to resume transmission "after the occurrence of a subsequent transient." Applicants respectfully submit that, following the logic of the Office Action in substituting transients for errors, the combination of *Maxwell et al.* and *Smith et al.* teaches away from Applicants' claimed invention by teaching that the transmission rate would be increased when no transients/errors are detected, rather than when on occurrence of a subsequent transient/error.

Accordingly, the proposed combination of *Maxwell et al.* in view of *Smith et al.* does not teach at least the above-described features of claim 63. Since the proposed combination does not teach at least the above-described features recited in claim 63, a *prima facie* case establishing an obviousness rejection has not been made. Thus, claim 63 is not obvious under the proposed combination of *Maxwell et al.* in view of *Smith et al.*, and the rejection should be withdrawn.

d. Rejection of Claim 71

Applicants respectfully submit that claim 71 is allowable for at least the reason that the proposed combination of *Maxwell et al.* in view of *Smith et al.* does not disclose, teach, or suggest at least the feature of "after failing to detect a transient for a predetermined length of time, causing the data communications equipment to resume data transmission" as recited in claim 71.

Maxwell et al. discloses a modem that monitors the number of errors in received data, and reduces the transmission rate when the number of retransmitted frames reaches a certain level. (Col. 19, line 47 to Col. 20, line 18). *Smith et al.* discloses detecting transients produced by make-break pulse dialing. According to the Office Action, the combination of the transmission rate adjustment in *Maxwell et al.* and the pulse detection in *Smith et al.* teaches suspending or lowering transmission rate on detection of errors. (Office Action, p. 4, first paragraph). The implication is that in combining the two references, the detected transients in *Smith et al.* are substituted for detected errors in *Maxwell et al.*

Maxwell et al. also teaches that the modem increases the transmission rate when the number of retransmitted frames (errors) goes back to zero. (Col. 20, lines 18-27). *Maxwell et al.* does not teach the use of a predetermined length of time in determining when to increase the rate. In contrast, Applicants' invention as defined in claim 71 causes the data communications equipment to resume transmission "after failing to detect a transient for a predetermined length of time." Applicants respectfully submit that, following the logic of the Office Action in substituting transients for errors, the combination of *Maxwell et al.* and *Smith et al.* teaches that the transmission rate would be increased when no transients/errors are detected, rather than when failing to detect a transient/error for a predetermined length of time.

Since the proposed combination does not teach at least the above-described features recited in claim 71, a *prima facie* case establishing an obviousness rejection has not been made. Thus, claim 71 is not obvious under the proposed combination of *Maxwell et al.* in view of *Smith et al.*, and the rejection should be withdrawn.

e. Rejection of Claims 75 and 82

Applicants respectfully submit that claims 75 and 82 are allowable for at least the reason that the proposed combination of *Maxwell et al.* in view of *Smith et al.* does not disclose, teach, or suggest at least the feature of “collecting data describing one or more subsequent transients that occur over a first predetermined length of time; and determining, based on the collected data, a second time for rate adjustment” as recited in claims 75 and 82.

Maxwell et al. discloses a modem that monitors the number of errors in received data, and reduces the transmission rate when the number of retransmitted frames reaches a certain level. (Col. 19, line 47 to Col. 20, line 18). *Maxwell et al.* also teaches that the modem increases the transmission rate when the number of retransmitted frames goes back to zero. (Col. 20, lines 18-27). *Smith et al.* discloses detecting transients produced by make-break pulse dialing. According to the Office Action, the combination of the transmission rate adjustment in *Maxwell et al.* and the pulse detection in *Smith et al.* teaches suspending or lowering transmission rate on detection of errors. (Office Action, p. 4, first paragraph).

The Office Action does not specifically allege which teachings in *Maxwell et al.* and/or *Smith et al.* correspond to the claimed “collecting” step. Therefore, Applicants respectfully submit two arguments in the alternative. If the Office Action relies on *Maxwell et al.* for the “collecting” step, Applicants respectfully submit that although *Maxwell et al.* counts errors, it does not teach, disclose, or suggest, “collecting data describing” errors. Therefore, even if *Smith et al.*’s transients are substituted for *Maxwell et al.*’s errors, the combination does not teach “collecting data describing one or more subsequent transients” as recited in claims 75 and 82.

On the other hand, if the Office Action relies on *Smith et al.* for the “collecting” step, Applicants submit that there is no motivation to combine the alleged teaching in *Smith et al.* of “collecting data describing one or more subsequent transients” with the “determining, based on

the collected data, a second time for rate adjustment” step allegedly taught in *Maxwell et al.* The rate adjustment technique used in *Maxwell et al.* is simplistic: errors are counted; when the errors reach a certain level the rate is adjusted downward, and when the errors return to zero the rate is adjusted upward. So even assuming, *arguendo*, that *Smith et al.* collects data that characterizes transients, there is no suggestion in *Maxwell et al.* to use this additional data in a way that affects the transmission rate.

Nor does the Office Action suggest such a motivation. The reasoning used in the Office Action suggests that in combining the two references, the detected transients in *Smith et al.* are substituted for detected errors in *Maxwell et al.*: “it would have been obvious to the person having ordinary skill in this at the time the invention was made to provide a similar transient detection arrangement for *Maxwell et al.* so that the processor can suspend or lower the data transmission rate upon detection of errors or transients as taught by *Smith et al.*” (Office Action, p. 4, first paragraph). But if transients are substituted for errors, there is no teaching or suggestion in *Maxwell et al.* to do anything but count the transients.

Accordingly, the proposed combination of *Maxwell et al.* in view of *Smith et al.* does not teach at least the above-described features of claims 52 and 67. Since the proposed combination does not teach at least the above-described features recited in claims 75 and 82, a *prima facie* case establishing an obviousness rejection has not been made. Thus, claims 75 and 82 are not obvious under the proposed combination of *Maxwell et al.* in view of *Smith et al.*, and the rejection should be withdrawn.

f. Claims 79, 83, 85, and 86

Since claims 76 and 82 are allowable, Applicants respectfully submit that claims 79, 83, 85, and 86 are allowable for at least the reason that each depends from an allowable claim. *In re*

Fine, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596, 1598 (Fed. Cir. 1988). Therefore, Applicants respectfully request that the rejection of claims 79, 83, 85, and 86 be withdrawn.

4. Rejection of Claims 49, 53, 57, 60, 64, 68, and 72 under 35 U.S.C. §103

Claims 49, 53, 57, 60, 64, 68, and 72 have been rejected under §103(a) as allegedly obvious over *Maxwell et al.* (U.S. 4,771,417) in view of in view of *Smith et al.* (U.S. 3,935,392) and further in view of *Frick et al.* (U.S. 5,473,676).

a. Rejection of Claims 49, 57, and 60

Claims 49, 57, and 60 are cancelled without prejudice, waiver, or disclaimer, and the rejection of these claims is therefore rendered moot. Applicants take this action merely to reduce the number of disputed issues and to facilitate early allowance and issuance of other claims in the present application. Applicants reserve the right to pursue the subject matter of these cancelled claims in a continuing application, if Applicants so choose, and do not intend to dedicate any of the cancelled subject matter to the public.

b. Claims 53, 64, 68, and 72

Since claims 52, 63, and 67 are allowable, Applicants respectfully submit that claims 53, 64, 68, and 72 are allowable for at least the reason that each depends from an allowable claim. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596, 1598 (Fed. Cir. 1988). Therefore, Applicants respectfully request that the rejection of claims 53, 64, 68, and 72 be withdrawn.

5. Rejection of Claims 50, 51, 61 and 62 under U.S.C. §103

Claims 50, 51, 61 and 62 have been rejected under §103(a) as allegedly obvious over *Maxwell et al.* (U.S. 4,771,417) in view of in view of *Smith et al.* (U.S. 3,935,392) and further in view of *Frick et al.* (U.S. 5,473,676) and *Parrott* (U.S. 6,351, 533). Claims 50, 51, 61 and 62 are

cancelled without prejudice, waiver, or disclaimer, and the rejection of these claims is therefore rendered moot. Applicants take this action merely to reduce the number of disputed issues and to facilitate early allowance and issuance of other claims in the present application. Applicants reserve the right to pursue the subject matter of these cancelled claims in a continuing application, if Applicants so choose, and do not intend to dedicate any of the cancelled subject matter to the public.

6. Rejection of Claims 54, 55, 58, 59, 65, 66, 69, 70, 73 and 74 under U.S.C. §103

Claims 54, 55, 58, 59, 65, 66, 69, 70, 73 and 74 have been rejected under §103(a) as allegedly obvious over *Maxwell et al.* (U.S. 4,771,417) in view of in view of *Smith et al.* (U.S. 3,935,392) and further in view of *Frick et al.* (U.S. 5,473,676) and *Parrott* (U.S. 6,351, 533).

a. Rejection of Claims 58 and 59

Claims 58 and 59 are cancelled without prejudice, waiver, or disclaimer, and the rejection of these claims is therefore rendered moot. Applicants take this action merely to reduce the number of disputed issues and to facilitate early allowance and issuance of other claims in the present application. Applicants reserve the right to pursue the subject matter of these cancelled claims in a continuing application, if Applicants so choose, and do not intend to dedicate any of the cancelled subject matter to the public.

b. Rejection of Claims 54, 55, 65, 66, 69, 70, 73, and 74

Since claims 52, 63, 67, and 71 are allowable, Applicants respectfully submit that claims 54, 55, 65, 66, 69, 70, 73, and 74 are allowable for at least the reason that each depends from an allowable claim. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596, 1598 (Fed. Cir. 1988). Therefore, Applicants respectfully request that the rejection of claims 54, 55, 65, 66, 69, 70, 73, and 74 be withdrawn.

7. Newly Added Claims


Applicants submit that no new matter has been added in the new claims 94-98 and that new claims 94-98 are allowable over the cited prior art. Specifically, Applicants respectfully assert that independent claim 94 is allowable for at least the reason that the combination of cited references does not teach, disclose, or suggest “determining, based on the collected data, a rate adjustment time; and adjusting, at the rate adjustment time, the current transmission rate of the data communications equipment.” Since independent claim 94 is allowable for at least these reasons, Applicants respectfully submit that newly added claims 95-98 are allowable for at least the reason that each depends from an allowable claim. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596, 1598 (Fed. Cir. 1988). Therefore, Applicants request that the Examiner enter and allow the above new claims.

CONCLUSION

Applicants respectfully request that all outstanding objections and rejections be withdrawn and that this application and presently pending claims 52-55, 63-88 and 94-98 be allowed to issue. If the Examiner has any questions or comments regarding Applicants' response, the Examiner is encouraged to telephone Applicants' undersigned counsel.

Respectfully submitted,

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